

CLAIMS

What is claimed is:

1. A superabsorbent composition comprising:
an underneutralized superabsorbent polymer in which at least 30% of the functional groups of the polymer are in free acid form; and
a layered double hydroxide anionic clay.
2. The composition of claim 1 wherein the underneutralized superabsorbent polymer has a pH ranging from about 4.5 to about 6.0.
3. The composition of claim 1 wherein less than about 70 % of the functional groups of the underneutralized superabsorbent polymer are sodium neutralized and at least 30 % of the functional groups of the underneutralized superabsorbent polymer are in free acid form.
4. The composition of claim 1 wherein less than about 50 % of the functional groups of the underneutralized superabsorbent polymer are sodium neutralized and at least 50 % of the functional groups of the underneutralized superabsorbent polymer are in free acid form.
5. The composition of claim 1 wherein about 40% of the functional groups of the underneutralized superabsorbent polymer are sodium neutralized and at least 60 % of the functional groups are in free acid form.
6. The composition of claim 1 wherein the layered double hydroxide anionic clay is hydrotalcite.

- 1 7. The composition of claim 6 wherein the hydrotalcite is rehydrated.
- 2 8. The composition of claim 1 wherein the underneutralized superabsorbent polymer and
3 the layered double hydroxide anionic clay are present in a ratio ranging from about 1:1
4 to about 1:20.
- 1 9. The composition of claim 1 wherein the underneutralized superabsorbent polymer and
2 the layered double hydroxide anionic clay are present in a ratio ranging from about 1:1
3 to about 1:10.
- 1 10. An absorbent article comprising:
2 a liquid pervious topsheet;
3 a liquid impervious backsheet joined to said topsheet;
4 an absorbent core positioned between said topsheet and said backsheet;
5 said absorbent core including fluff pulp and a superabsorbent composition;
6 said superabsorbent composition comprising an underneutralized superabsorbent
7 polymer and a layered double hydroxide anionic clay
8 wherein at least 30% of the functional groups of the underneutralized superabsorbent
9 polymer are in free acid form.
- 1 11. The absorbent article of claim 10 wherein the superabsorbent composition is present
2 in an amount ranging from about 0.2 gram to about 0.8 grams per gram of fluff pulp in
3 the absorbent core.
- 1 12. The absorbent article of claim 10 wherein the superabsorbent composition is present
2 in an amount ranging from about 3 gram to about 10 grams per gram of fibrous
3 material in the absorbent core.

- 1 13. The absorbent article of claim 10 wherein the underneutralized superabsorbent
2 polymer has a pH ranging from about 4.5 to about 6.0.
- 1 14. The absorbent article of claim 10 wherein less than about 70 % of the functional
2 groups of the underneutralized superabsorbent polymer are sodium neutralized and at
3 least 30 % of the functional groups of the underneutralized superabsorbent polymer
4 are in free acid form.
- 1 15. The absorbent article of claim 10 wherein less than about 50 % of the functional
2 groups of the underneutralized superabsorbent polymer are sodium neutralized and at
3 least 50 % of the functional groups of the underneutralized superabsorbent polymer
4 are in free acid form.
- 1 16. The absorbent article of claim 10 wherein about 40% of the functional groups of the
2 underneutralized superabsorbent polymer are sodium neutralized and at least 60 % of
3 the functional groups are in free acid form.
- 1 17. The absorbent article of claim 10 wherein the layered double hydroxide anionic clay is
2 hydrotalcite.
- 1 18. The absorbent article of claim 17 wherein the hydrotalcite is rehydrated.
- 1 19. The absorbent article of claim 10 wherein the underneutralized superabsorbent
2 polymer and the layered double hydroxide anionic clay are present in a ratio ranging
3 from about 1:1 to about 1:20.

- 1 20. The absorbent article of claim 10 wherein the underneutralized superabsorbent
2 polymer and the layered double hydroxide anionic clay are present in a ratio ranging
3 from about 1:1 to about 1:10.

09686822 101200